

Human_p53 MEEPQSDPSVEPPLSQEETFFSDLLWKLLPENNV-----LSP--LPSQAMD
X_no_p53 ME-PSSSETGMDPPLSQEETFFDLWSLLP-D-----PLOTVT
Squid_p53 MSQGT-----PNSQETFFNLLWDSLEQVTANEYTOIHERGVGYEYHEAPDQTSLEISA
CPB_p53 MS-SQSD-----FLPPDVQNFLLAELEGD-----NMDNLN
Trib_p53A MS-QQS-----QFSDIIPDVDFLEDH-----GLKDDV
Trib_p53B -----V-----
Hlio_p53 -----
Dros_p53 MYISQP-----MSWHKESSTDSEDDSTEVDIK-----EDIPKTV
consensus m qs et l le l

Human_p53 DILSLFDDDI--EQWFTEDPGPDEAPRMPEAAAPRV-----APAPAAPTPAAPAPAPSW
Xeno_p53 CRLDNLS-----EFPDYPLAARDMT-----VLQEGLMGNAVPTVT--
Squid_p53 YRIAQPDYGRSESYDLLNPIINQIPAPMPIADTQNNPLVNHCPYEDMPVSSTPYSPHDH
CPB_p53 FFKDEFT-----LNDLNSNILNG-----SIVANDDSKMHVHLIFPG-
Trib_p53A GRIMHEN-----NVHLVNDGGE-----EEKYSNEANYTESIFPP-
Trib_p53B RQYKPPD-----FSHTFHPIICSIQLEDFKFNINQSILSAPIFPP-
Helio_p53 EVSGSELT-----TEPMAFLQGLNSGN-----LMQFSQQSVLREMMQLQDI
Dros_p53 -----p a t v p
consensus m p

Human_p53 PL--SSSVPSQKTYQGSYGGERLGFH-SGTAKSVTCTYSPALNKKMTCTAKTCTPVQLWVD
Xeno_p53 ---SCAVPSTDYAGKYGLQLDFQQ-NGTAKSVTCTYSPALNKKMTCTAKTCTPVQLWVD
Squid_p53 VQSPQPSVPSNLIKYPGEYVFEMSAQPSKETKSTTWTYSEKLLDKLYVRMTTTCPVREKTA
CPB_p53 ---VQTSVPSNDEYDGPVEFEVDVHP--TVAKNSWVYSTTLNKVYMTMGSPFPVDFRVS
Trib_p53A ---DQTNLGTETEYPCPFNFESVLLISP--NEQKSPWEYSEKLNKLTETIGINVKFPAFSVQ
Trib_p53B ---SEPLELCNTEYPCPLNFEVFDVDP--NVLKNPWEYSPILNKLTYIDMKHKFPFNFESVK
Helio_p53 -----HEMKCNFSVQFNWD
Dros_p53 QIQANTLPKLENHNIGGYCFESMVLDE---PPKSLMWYSIPLNKLYIRMNKAFNVDVQFK
consensus q svpsq dy g y f l v k tw ys lnmkyv ma fpv f v

FIG.-1A

Human_p53	STPP	-PGTR	VRAMA	IX	KQSQH	MT	EVVR	RCP	PHHER	CSD	---	SD	GLAPPQ	HL	IRVE	GNLR	
Xeno_p53	SPPP	-RGS	IRATA	IX	KKSEH	VAE	VVKR	RCP	PHHER	SV	EP	---	GE	DAAPP	HL	IRVE	GNLQ
Squid_p53	RPPP	-SGCQ	IRAMP	IX	MKPEH	VQE	VVKR	RCP	NHATA	KEH	---	NE	KHPAPL	HI	VRCE	HKL	
CPB_p53	HRPP	-NPL	IRSTPV	IX	SAPQFA	QEC	CVYR	RCP	NHEF	SHKES	---	DG	DLKEH	IRP	HIIR	CANQYA	
Trib_p53A	NRPQ	NLPL	IRATPV	IX	SQTQHF	QDL	LVHR	RCP	VGHR	HPQ	DS	---	NK	GVAPH	IFQ	HIIR	CNDNA
Trib_p53B	KADP	ERR	IRVMP	IX	EEDRY	VQE	LVHR	RCP	ICHE	QLT	DP	---	NH	VSEM	VAQ	HIIR	CNNNA
Helio_p53	YQKA	-PHM	VRSTV	IX	SDETQ	AEKRV	VERC	VQH	FHES	STS	---	GI	QTE	IAKN	VL	HSS	REIGTQ
Dros_p53	SKMP	IQP	IRVFL	CE	SND	---	VSA	PVVR	CQNH	LSVE	PL	---	AN	NAK	MRES	LRSEN	PNS
cons nsus	pp	lfvRat	pvys		hvqev		RCln	He	d	s					i	hi	Rcennna

Human_p53	VEYLD	DRNT	---	FRHS	VVPY	EP	---	PE	VGSD	CT	TIHY	NYM	CNS	SSC	MG	---	GMNRR	PI	LT
X no_p53	AYYME	EDVNS	---	GRHS	VCVP	YEG	---	PQ	VGTE	CT	TVLY	NYM	CNS	SSC	MG	---	GMNRR	PI	LT
Squid_p53	AKYHE	EDKYS	---	GRQS	VTEP	HEM	---	PQ	AGSE	WV	NLY	QFM	CLG	SC	VG	---	GMNRR	PI	LT
CPB_p53	AYLG	DKSKN	---	ERLS	VVTE	PGI	---	PQ	TGTE	SVRE	IEI	FEF	VCK	NSC	PS	---	GMNRR	RA	VEI
Trib_p53A	LYFG	DKNTG	---	TRLN	IVTE	PLAH	---	PQ	VGED	VVKE	FEI	QFV	CKN	SC	PL	---	GMNRR	PI	DVV
Trib_p53B	QYFG	DKNAG	---	KRLS	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
H lio_p53	VYYCG	KVDM	---	ADSW	YSVL	VEF	---	MR	TSSE	SCSH	AYQ	QFS	CKN	SC	AT	---	GMNRR	RA	TA
Dros_p53	VYCG	NAQ	GKISER	FS	VAVPL	NMSR	SVTR	SG	LT	RQ	TLA	KFV	CQN	SC	IG	---	---	---	---
cons nsus	vyygdk		r	svvvp	e		pq	gse	t	ynfmc	nscmg	gmnr	pi	li					

FIG.-1B



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Human_p53 ITLEDSSGNLELGRNSFEVRVACPGGRDRRTTEE-NLRKKG---EPHHELPPGSGSTKRALP
Xeno_p53 ITLETPQGLELGRRCFEVRVACPGGRDRRTTEED-NYTKK---RGLKPSG--KRRELA
Squid_p53 FTLEK-DNQVLEGRRAVEVRICACPGGRDKADEKASLVSK---PPSPKKNCGFPQRSLSLV
CPB_p53 FTLEDNQGTIYGRKTLNVRICACPKRDKDEKDNANT---NLPHG-KKKRKMME
Trib_p53A FTLEDNKGEVFGRRLVGVVRVSCPKRDKDEKDMESA---VPPRRKKRKLGLG
Trib_p53B -----
Helio_p53 FTLEDAMGNTHGRQKVGAR-----
Dros_p53 ECLEKACGDIIVGQHVIHVKTCTCPKRDRIQDERQLNSKKRKSVPPEAAEEDPSKVRRCTA
cons nsus ftled g llgr v vrvv cp rdr eek k p g kr l

Human_p53 NNTSSSP-QPKK---KPLDGEYFTLQIRGRERFEMFREINAELELKDAQAG-----
Xeno_p53 HPPSSEPLPKKRLVVDDEIEIFTLRIKGRSRYEMIKKENDALELQESLDQO-----
Squid_p53 LTNDITKITPKK---RKIDDECFTLKVRGRENYETLCKLRDIEMELAAARIPAEERLLYKQE
CPB_p53 KPSKKPMQTQAE---NDTKETTLTPLVGRHNEQNVLYCHDLMAGEILRN-----
Trib_p53A NDERRVVPQGSS---DNKIFALNIHIFPKKNYLQALKMCQDMLANEILKKQ-----
Trib_p53B -----
Helio_p53 -----
Dros_p53 IKTEDTESNDSRDCDDSAAEWNVSRTPDGDYRLATTCPNKEWTLQSIEMIK-----
consensus k e tli gr f m k l e l d l

Human_p53 -KEPGG---SRAHSSHLKSKKGQ-----STSRHKKLMFKTEGPPDS-----
Xeno_p53 -KVTIK---CRKCRDEIKPKKG-----KLLVVKDEQPDSE-----
Squid_p53 RQAPIGRLTSLPSSSSNGSQDGSRSSTAFSTSDSSQVNSSQNNNTQMVGNGQVPHSEETPVT
CPB_p53 ---IG---NGTEGPYKIALN-----KINTLIRESE-----
Trib_p53A ---EQG---GD-DSADKNCYN-----EITVLLNGTAADF-----
Trib_p53B -----
Helio_p53 -----
Dros_p53 ---EAAAEVLRNPQENLRHRAN-----KLISLKKRAYELP-----
consensus g k lmv d

FIG.-1C



```
Human_p53 -----
X_no_p53 -----
Squid_p53 KCEPTENTIAQWLTKLGLQAYIDNFQKGLHNMFQLDEFTLEDLQSMRIGTGHRNKIWKS
CPB_p53 -----
Trib_p53A -----
Trib_p53B -----
Hlio_p53 -----
Dros_p53 -----
consensus -----
```

```
Human_p53 -----
Xeno_p53 -----
Squid_p53 LLDYRRLSSGTESQALQHAASNASTLSVGSQNSYCPGFYEVTRYTYKHTISYL
CPB_p53 -----
Trib_p53A -----
Trib_p53B -----
Hlio_p53 -----
Dros_p53 -----
consensus -----
```

FIG._1D